# NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION INFORMATION EXCHANGE FOR MARINE EDUCATORS JUNE 2015

This update is funded by the National Marine Sanctuary Foundation in partnership with NOAA's Ocean Exploration and Research Program, with additional support from the National Marine Protected Areas Center, to share information pertinent to the marine educator community. It is intended to encourage exchange of information and programs. We hope that it will also promote collaboration among the different educators addressing similar issues in their programs.

Please share this email with your colleagues and constituents. If you request materials or respond to a request for information, please mention that you learned about it from NOAA's Information Exchange.

The information included here has been compiled from many different sources, including EE-NEWS@NAAEE, EEinGEORGIA, the Scout Report, scuttlebutt, NSTA Express, and others. We have verified web addresses, but make no guarantee that they will remain active. The Department of Commerce/NOAA does not necessarily endorse or promote the views or facts presented on these sites.

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Collected archives and issues of the newsletter, past and present, are available at http://marineprotectedareas.noaa.gov/resources/education/.

#### NOTABLE REFERENCE

## **Diversity: A Nature & Scientific American Special Issue**

This special issue, a partnership between Nature and Scientific American, explores links between diversity and good research. http://www.nature.com/news/diversity-1.15913

## **Drought Impacts to Critical Infrastructure**

This report by the Department of Homeland Security Office of Cyber and Infrastructure Analysis examines the impacts of current drought conditions on critical infrastructure systems such as water and wastewater, energy, food, and agriculture. The report outlines the effects now visible on systems and planning and policy measures to address them.

http://content.govdelivery.com/attachments/USDHSFACIR/2015/04/30/file\_attachments/386553/Drought%2BImpacts%2Bto%2BCritical%2BInfrastructure.pdf

#### WEBSITES OF THE MONTH

#### **Collection of Ocean Acidification Educational Resources**

The Suquamish Tribe and partners offer this curated collection of free resources on ocean acidification for K-12 educators. The links include lesson plans correlated to components of the NGSS, along with links to supplemental materials such as multimedia, journal articles, and more. The website also offers an Ask an Expert submission form. Additional resources are under review; contact Paul Williams if you would be interested in joining the review process.

http://www.oacurriculumcollection.org/

Contact Paul Williams at <a href="mailto:pwilliams@suquamish.nsn.us">pwilliams@suquamish.nsn.us</a>

# Edublogger

The Edublogger is designed to help educational bloggers with emerging technologies in education and can also be helpful for others who want to learn about blogging. Recent posts have included tips for getting students engaged in their classes through blogging, creating stronger passwords, and more. There are educator's guides to different social media, free web tools, and much more.

http://www.theedublogger.com

# TWITTER EVENT OF THE MONTH

#### What are Your Ocean Questions?

World Oceans Day is June 8, 2015, and in its honor, the Consortium for Ocean Leadership and its members want to hear from you during a live Twitter event. Send in the science questions you have about the ocean; learn more about a specific marine organism; ask how the ocean helps regulate climate or contributes to severe weather events; and more.

http://oceanleadership.org/consortium-for-ocean-leadership-world-oceans-day-live-twitter-event/

#### **GRANTS AND OPPORTUNITIES**

#### Afterschool Awards

The Afterschool Awards spotlight after-school achievements for elementary and middle school students. Categories include community service, science, and more. The deadline for application is June 30, 2015.

http://www.afterschoolawards.com/

# **Clif Bar Family Foundation's Small Grants**

The Clif Bar Family Foundation Small Grants are awarded to projects that protect earth's beauty and bounty; increase opportunities for outdoor activity; and more. The quarterly deadlines for applications are August 15, November 15, May 15, and February 15 each year.

http://clifbarfamilyfoundation.org/Grants-Programs

# Core Fulbright U.S. Scholar Program

The Core Fulbright U.S. Scholar Program offers teaching, research, or combined teaching/research awards in environmental studies and other disciplines. Opportunities are available for college and university faculty and administrators as well as for artists, journalists, scientists, lawyers, and others. The deadline for application is August 3, 2015.

http://www.cies.org/program/core-fulbright-us-scholar-program

#### **Delaware Wetland Warrior Award - Delaware**

The Delaware Wetland Warrior Award recognizes efforts to protect wetlands and the significant services they provide. The Wetland Warrior Award is presented annually for demonstrating outstanding efforts to benefit Delaware wetlands through outreach and education, monitoring and assessment, or restoration and protection. The deadline for application is June 26, 2015.

http://www.dnrec.delaware.gov/Admin/DelawareWetlands/Pages/WetlandWarriors.aspx

#### Fab School Labs

Northrop Grumman Foundation's Fab School Labs contest welcomes submissions from public middle schools for a lab makeover. The deadline for submission is June 12, 2015, with five grants available.

http://www.fabschoollabs.com/

#### **Keen Effect Grants**

Projects funded by Keen Footwear increase responsible outdoor participation as a way to work towards building a strong community. Projects that introduce new audiences to the outdoors through responsible outdoor participation will receive special consideration. The deadline for application is August 1, 2015.

http://www.keenfootwear.com/keen-effect.aspx

#### **Mazda Foundation Grants**

The Mazda Foundation awards grants to programs promoting education and literacy, environmental conservation, cross-cultural understanding, social welfare, and scientific research. The deadline for application is July 1, 2015. http://www.mazdafoundation.org/Grant Guidelines.html

#### **NOAA Fisheries' Coastal Ecosystem Resiliency Grants Program**

The NOAA Fisheries' Coastal Ecosystem Resiliency Grants Program focuses on developing healthy and sustainable coastal ecosystems through habitat restoration and conservation. Projects should demonstrate socioeconomic benefits associated with restoration of healthy and resilient coastal ecosystems, support healthy fish populations, and demonstrate collaboration among multiple stakeholders. The deadline for submission is July 2, 2015.

http://www.habitat.noaa.gov/funding/coastalresiliency.html

#### Regional Coastal Resilience Grant Program

The National Ocean Service 2015 Regional Coastal Resilience Grant Program helps coastal communities and organizations prepare for and recover from adverse events while adapting to changing environmental, economic, and social conditions. The deadline for submission is July 24, 2015.

http://www.coast.noaa.gov/resilience-grant/

# Using NGSS to Investigate the Effects of Climate Change on Connecticut - Connecticut

Connecticut Sea Grant and partners are hosting a workshop for middle and high school teachers, June 6, 2015 in Madison, Connecticut. Learn how to incorporate NGSS and STEM into your science curriculum. Hurry - the course is limited to the first ten people who sign up.

Contact Leanne Nolan at nolanl@plainivlleschools.org

# **WMO Photo Competition**

The World Meteorological Organization is holding a photo competition on the 2016 World Meteorological Day theme, *Hotter, drier, wetter. Face the Future*. The theme has been chosen to illustrate the reality of climate change. The deadline for submission is June 29, 2015.

http://www.wmo.int/worldmetday/content/photo-competition-2016-hotter-drier-wetter-face-future

#### **World Trout Initiative**

The World Trout Initiative funds groups and efforts working to restore and protect wild, self-sustainable trout, salmon, and other fish species within their native range, including both indigenous fresh and salt water fish. The deadline for application is August 31, 2015.

http://www.patagonia.com/us/patagonia.go?assetid=33354

# **Young Birder of the Year Contest**

The American Birding Association sponsors the Young Birder of the Year, an annual contest for youth ages 10-18. Submissions are due by October 15, 2015, but youth must register by June 15, 2015.

http://youngbirders.aba.org/young-birder-of-the-year-contest

# FELLOWSHIPS, INTERNSHIPS, AND TEMPORARY OPPORTUNITIES

# **Marine Education Fellowship**

Ecology Project International offers Marine Education Fellowships, eight-day ecology-focused fellowships in Baja, Mexico and Costa Rica. All expenses for the fellowship are covered except airfare and a program fee. Sign up to be notified when the application process opens.

http://www.ecologyproject.org/promo/fellowship

#### **NSTA New Science Teacher Academy Fellowships**

NSTA fellowships offer middle and high school teachers in their second through fifth years of teaching a year-long immersion in a host of science-related activities and professional development opportunities. The deadline for application is August 15, 2015.

http://www.nsta.org/academy/

# CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

# Climate Education Regional Workshop - Colorado

NOAA's Climate Stewards Education Project and partners will convene four free climatescience workshops for formal and informal educators. This workshop, June 25-27, 2015 in Boulder, Colorado, will focus on the region and topical impacts of climate change. Availability is on a first come first serve basis, so register early.

http://www.climate.gov/teaching/professional-development/climate-education-regional-workshop-boulder-colorado

# Connecting Your Environment to Your Classroom - California

Sponsored by the CREEC Network and Rancho El Chorro Outdoor School, this free workshop August 3-4, 2015 in San Luis Obispo, California, offers curriculum guides for Project Learning Tree, Project Wet, and more, along with a stipend, additional resources, and much more. The deadline for registration is June 15, 2015. <a href="http://www.creec.org/writable/news\_letters/document/summer\_ee\_training\_for\_teachers\_2015.pdf">http://www.creec.org/writable/news\_letters/document/summer\_ee\_training\_for\_teachers\_2015.pdf</a>

# Global Ocean Science Education Workshop - Rhode Island

The goals of the Global Ocean Science Education Workshop, June 26-27, 2015 in Narragansett, Rhode Island include identifying opportunities and setting a course for international collaborations, and establishing a foundation for an international ocean science education network. The deadline for registration is June 5, 2015. https://www.regonline.com/Register/Checkin.aspx?EventID=1696166

#### **Groundwater to the Gulf - Texas**

Groundwater to the Gulf, June 22-25, 2015 from Austin, Texas, is a free field-trip based institute for Central Texas teachers that emphasizes techniques for teaching water-based curricula. Participants follow the path of water in Central Texas from its origins to its final destination in the Gulf of Mexico. Topics include hydrology, groundwater, urban watersheds, and much more.

http://coloradoriver.org/newsite/our-programs/redbud-educational-program/groundwater-to-the-gulf/

#### **International Coral Reef Symposium - Call for Proposals**

The theme of the 13th International Coral Reef Symposium (ICRS), June 19-24, 2016 in Honolulu, Hawai'i, is Bridging Science to Policy. The symposium, held every four years, is the largest international meeting focused on coral reef science and management. See the website for details. The deadline for submission is July 31, 2015. http://orcascom.com/isrs/sessions/

#### **JASON National Educators Conference**

The JASON National Conference Thursday, June 25-27, 2015 in Ashburn, Virginia, provides an opportunity to obtain resources and develop skills for bringing Science, Technology, Engineering, and Mathematics education to your teachers and students. In addition to the hands-on workshops, targeted breakout sessions, and networking opportunities, this year JASON is offering an "Adventure Track" which will provide hands-on experiences for educators.

https://www.jason.org/news/announcing-our-2015-national-educators-conference-june-25-27-2015

# Marine Debris Educator Workshop - Ohio

Stone Lab is hosting a Marine Debris Educator Workshop from Ohio Sea Grant and NOAA's Marine Debris Program, June 8-10, 2015 on Gibraltar Island, Ohio. Recommended for K-8 educators, the program will give teachers first-hand experience in conducting marine debris research and cleanups, along with an in-depth look at curriculum. Hurry – the deadline for registration is June 3, 2015. http://stemoutreach.osu.edu/events/marine-debris-educator-workshop

#### NMEA Conference

The theme of the National Marine Educator's Association 2015 Conference, June 29-July 2, 2015 in Newport, Rhode Island, is *Ocean State, Ocean Planet: Exploring Our World of Water.* There will be five conference tracks: in the classroom; out of the classroom; next generation science standards; today's scientific research; and partnerships with industry and government.

http://www.marine-ed.org/general/custom.asp?page=NMEA\_2015

#### **NGSS Web Seminars - Online**

NSTA offers this free Next Generation Science Standards Web Seminar series for educators teaching grades K-5. The summer series includes Constructing explanations from evidence, Making meaning through discourse, and Planning a coherent storyline. <a href="http://learningcenter.nsta.org/products/symposia\_seminars/NGSS/webseminar.aspx">http://learningcenter.nsta.org/products/symposia\_seminars/NGSS/webseminar.aspx</a>

# **NSELA Summer Leadership Institute - Florida**

The theme of the National Science Education Leadership Association's 2015 Summer Leadership Institute, June 23-26, 2015 in Tampa, Florida is *Science Leaders Building the STEM Future Together: Partnerships, Stewardship, & Collaboration*. <a href="http://www.nsela.org/SLI">http://www.nsela.org/SLI</a>

Ocean Sampling Day - Transatlantic Ocean Science and Ocean Literacy - Online This online workshop was hosted by NOAA's Office of Ocean Exploration and Research and partners May 4–22, 2015 in support of Ocean Sampling Day, June 21, 2015. Phase 2 will take place June17- 26, 2015 and will extend the conversation to document the actions of citizen scientists and continue to develop the MyOSD network. http://www.coexploration.org/oe2015/

# **Supervising Young Adults in Conservation - Online**

OUT8045-Online from the U.S. Fish & Wildlife Service (FWS) is a recorded webinar, led by Student Conservation Association staff possessing practical hands-on experience working with and supervising young adults in both field-based and office environments. The webinar will relate critical thinking to common issues and situations often faced by supervisors working with young adults aged 16-25 years. Participants are given 90 days to complete this online self-study course.

Contact Sandy Spakoff@fws.gov

#### Sustainability in Everyday Life - Online

This free, online course from Chalmers University of Technology starting June 8, 2015, offers information and skills required to make sustainable choices. The course is organized into five key themes: chemicals, globalization, climate change, food, and energy. These five themes represent challenges that people face day-to-day managing choices relating to sustainability.

# https://www.edx.org/course/sustainability-everyday-life-chalmersx-chm002x

# **Turning Learners Into Leaders – Online**

Register for this free online course from the Jane Goodall Institute, June 29-August 2, 2015. Using the Roots & Shoots program model, the course will teach participants how to identify and implement a local service-learning campaign. Through the program, young people map their community to identify specific challenges their neighborhoods face. From there, they prioritize the problems, develop a plan for solutions, and take action. Check out the Roots & Shoots website; the projects can be filtered by focus areas including air, water, wildlife, and more.

https://igionlineeducation.appspot.com/MOOC2015/previewhttps://www.rootsandshoots.org/

# **EDUCATIONAL RESOURCES**

#### 2014: The Year in Science

The journal *Nature* published a recap of the year 2014 in science. Check out Nature's 10 which profiles ten scientists who made key contributions in 2014; images of the year; the year's top stories; the most-read news stories; and more. http://www.nature.com/news/2014-1.16547

#### **Celebrate Urban Birds**

From Cornell University, this website helps city residents create quality food and water resources, shelter, and nesting sites for birds in small spaces. http://celebrateurbanbirds.org/learn/gardening/

#### **Classroom Resources**

NSTA assembled a team of educators to identify and review resources such as lesson plans, video simulations, science kits, and more, that support the Next Generation Science Standards and the Framework for K-12 Science Education (Framework and science standards). Check back often, as new resources will be added daily. http://ngss.nsta.org/Classroom-Resources.aspx

# **Clearing Magazine**

CLEARING, the Pacific Northwest Journal of Community-based Environmental Literacy Education, is a print and online publication that provides information that can be used in classroom or outdoor settings. It includes activities and lesson plans, curriculum resources, book and resource reviews, program profiles, opinions and perspectives, and more. Sign up for the free mailing list to get the latest stories every month. Check out the online lesson plans and activities, lesson plan exchange, student-reviewed resources, and more.

http://clearingmagazine.org/

# **Climate Challenge**

Climate Challenge is an educational online game that invites players to learn more about climate science and to test their knowledge. The game combines practical steps to reduce one's carbon footprint with questions about future climate-related conditions that we cannot answer today, but will be able to answer in the future. It allows players to compare their answers to the experts' and, when available, see how both predictions

compare to real-world measurements. There will be one climate-related question per month. Free registration is required.

http://www.ecoresearch.net/climate-challenge/

# **Climate Change Indicators**

The U.S. Global Change Research Program has released a pilot set of 14 climate change indicators that unites efforts from across its member agencies. These indicators visually communicate aspects and effects of the changing climate, including: atmospheric carbon dioxide, ocean chlorophyll concentrations, and global surface temperatures. Some of the indicators show climate-related trends over time, whereas others show the status of resources that may be affected by climate change in the future.

http://www.globalchange.gov/browse/indicators

# **Crisis Guide: Climate Change**

The Council on Foreign Relations offers this six-chapter interactive video series on global warming. Experts discuss different aspects of global warming, including recognizing the problem, addressing the sources and impacts, and weighing the options. http://www.cfr.org/climate-change/crisis-guide-climate-change/p17088

# **Disaster Preparedness Prep Rally Toolkit**

Save the Children offers a Prep Rally Youth Service Toolkit to help users host a Prep Rally - an event that educates children and families about emergency preparedness. Help make sure that your community is prepared for the summer season of hurricanes, wildfires, floods, and tornadoes.

 $\frac{\text{http://www.savethechildren.org/site/c.8rKLIXMGIpI4E/b.9085951/k.B899/Get\_Ready\_Ge}{\underline{\text{t\_Safe\_Community.htm}}}$ 

## **DIY Lake Science App**

DIY Lake Science is a free app for iPhones and iPads that allows families and educators to investigate lakes and other freshwater ecosystems at home, at school, or anywhere. It offers outdoor and indoor hands-on activities, videos, and more. Each activity includes material lists, step-by-step instructions, and detailed explanations. http://www.lawrencehallofscience.org/do science now/diy lake science

#### **Early Warning and Environmental Monitoring Program**

The Early Warning and Environmental Monitoring program encompasses a broad spectrum of scientific endeavors operating at national, regional, and international scales. Project activities support investigations in the areas of climate change, natural resource management, environmental change detection, food security monitoring, water resource assessments, and hazard identification/mitigation. FEWS NET is a Famine Early Warning Systems Network that uses climate data, satellite imagery, and local knowledge to prevent famine. Other projects monitor drought, hydrographic information, and more. <a href="http://earlywarning.usgs.gov/fews/index.php">http://earlywarning.usgs.gov/fews/index.php</a>

#### **Expedition: Insects**

This e-book from the Smithsonian Science Education Center helps students (grades 3-5) explore characteristics of six different of insects in natural habitats around the world. Download an interactive version of the e-book for free on iBooks or read the non-interactive PDF version online. The website offers additional resources. http://www.ssec.si.edu/books/expedition/insects

# **Extreme Event: Coastal City**

The Extreme Event game for 12- to 48-players was made to help groups from communities to classrooms see how they'd fare in a disaster scenario. The quick-paced game is played on tablets or laptops and features an unfolding disaster in four phases—preparation, response, recovery, and adaptation.

https://www.koshland-science-museum.org/extreme-event/

#### Faces of the EPA

Introduce your class to EPA's staff through the Faces of the EPA video series. The videos spotlight employees ranging from special agents, to ocean explorers, and others as they explain their career paths and passion for their work.

https://www.youtube.com/playlist?list=PLBhfkkujnoRD-7H1IYa5FQ10AFgsjbnlh

#### **Fish Behavior**

Nature, the International Weekly Journal of Science, offers the online news article, Animal behaviour: inside the cunning, caring, and greedy minds of fish. The article discusses behaviors that show how fish cooperate, cheat, and punish. <a href="http://www.nature.com/news/animal-behaviour-inside-the-cunning-caring-and-greedy-minds-of-fish-1.17614?WT.ec">http://www.nature.com/news/animal-behaviour-inside-the-cunning-caring-and-greedy-minds-of-fish-1.17614?WT.ec</a> id=NATURE-20150528

#### **Fisheries Forum Information Network**

The Fisheries Forum Information Network is an interactive online community whose purpose is to build connections within the federal fisheries management community. The network is designed to help fishery management professionals stay informed about the latest developments and innovations in U.S. fisheries policy. http://www.fisheriesforum.org/home

## **GLOBE and Eco-Schools USA Collaboration**

The National Wildlife Federation's Eco-Schools USA has partnered with The Global Learning and Observations to Benefit the Environment (GLOBE) Program to integrate school sustainability and earth systems observations, data collection, and action in an effort to protect and conserve wildlife and wild places. Learn about both programs and the benefits they can provide. Subscribe to newsletters, check out the wildlife pages, and more.

http://www.nwf.org/Eco-Schools-USA/GLOBE.aspx

#### **Green Machines**

This video from NASA introduces phytoplankton - the base of the marine food web, the source of half of the oxygen on Earth, and an important remover of CO<sub>2</sub> from the atmosphere. The video reviews how satellites are used to monitor phytoplankton and how warming waters and acidification negatively affect phytoplankton. http://cleanet.org/resources/43137.html

#### **Green Schoolyards America**

Green Schoolyards America supports the green schoolyard movement. Their mission is to enable communities across the United States to enrich their school grounds and use them to improve children's well-being, learning, and play while promoting community engagement and contributing to the ecological health and resilience of cities. Download the free activity guide, check out the publications, and more. <a href="http://www.greenschoolyardsamerica.org/">http://www.greenschoolyardsamerica.org/</a>

#### Hands On the Land

Hands on the Land is a national network of field classrooms and agency resources to connect students, teachers, families, and volunteers with public lands and waterways. FWS has recently doubled the number of Hands on the Land sites, now with 15 sites in seven FWS regions. Check out the educator resources, monitoring, and more. http://www.handsontheland.org/

#### **Historical USGS Maps**

The USGS offers this new online map viewer, allowing visitors to search and browse the USGS collection of historical topographic maps. The maps, over 178,000 of them, date back to 1880, and cover the entire country. Visitors can type or zoom in on a particular place, limit a search to maps of a particular scale or from a particular range of dates, and download them in a variety of formats.

http://ngmdb.usgs.gov/maps/Topoview/

# Impacts of Coastal and Ocean Tourism - Online

Sponsored by NOAA's National MPA Center and partners, the webinar Lessons Learned: Impacts of Coastal and Ocean Tourism, will be presented by the Executive Director of the Center for Responsible Travel. The free webinar, June 11, 2015, examines some of the problems caused by coastal resort and cruise tourism, as well as efforts by industry to construct and operate coastal and marine tourism in ways that minimize environmental impacts and mitigate and adapt to climate change. https://attendee.gotowebinar.com/register/6674164588959491842

#### MIT Video

The MIT Video website curates video produced by MIT's offices, laboratories, centers, and administration. This includes feature and editorial videos, event recordings, academic content, and more. "Channels" include Earth, Atmospheric and Planetary Sciences; Environment; and more. The site also includes a search function. <a href="http://video.mit.edu/">http://video.mit.edu/</a>

#### NAMEPA

The North American Marine Environment Protection Association (NAMEPA) is a marine industry-led initiative that operates as a voluntary, non-profit, and nongovernmental organization committed to preserving the marine environment. The organization is comprised of marine industry professionals and works to educate seafarers, port communities, and others about the need and strategies for protecting the marine environment. Check out the upcoming sponsored events, educational materials, and more.

http://www.namepa.net/

#### **National Geographic: The Ocean**

This section of the National Geographic website is dedicated to the ocean. As expected from National Geographic, it hosts incredible videos and photos of underwater worlds, as well as articles and exposés of various issues. Categories include Ocean Life, Protecting the Ocean, and more.

http://ocean.nationalgeographic.com/ocean/

# **Nature's Fury: The Science of Natural Disasters**

The American Museum of Natural History offers the website, Nature's Fury: The Science of Natural Disasters, to support the exhibition of the same name. Sections include Earthquakes and Tsunamis, Tornadoes, and more, with background information and multi-media. The Additional Resources page features links to disaster agencies. <a href="http://www.amnh.org/exhibitions/current-exhibitions/nature-s-fury-the-science-of-natural-disasters">http://www.amnh.org/exhibitions/current-exhibitions/nature-s-fury-the-science-of-natural-disasters</a>

# **NGSS-Based Teaching in Action**

NSTA offers a series of eight free videos showing what it looks like to teach the science and engineering practices called for in the Framework and science standards. The videos, with accompanying lesson plans, highlight the major shifts in science instruction, explore the new role of the teacher, and demonstrate new instructional strategies in the high school classroom.

http://ngss.nsta.org/ngss-videos.aspx

#### Ocean Classrooms

The Ocean Classrooms website offers a free Ocean Literacy online course along with a portal for live ocean data from around the globe. Sign up for a free 30-day trial to check out the online course, Marine Science 101, a semester-long high school course. https://oceanclassrooms.com/learning/marine-science-101

#### **Ocean Drifters**

Dr Richard Kirby is the Plankton Pundit and offers a look at the secret world beneath the waves. Check out the online video, Ocean Drifters. http://www.planktonpundit.org/

#### **OFFSET**

NASA's Climate Kids offers a new educational game: OFFSET! Take matters into your own hands and help cut back on carbon emissions. The game plays like part Pong and part resource-management. The web page links to information about carbon sources, sinks, offsets, and more.

http://climatekids.nasa.gov/offset/

#### **Pathways to the Abyss**

The video, Pathways to the Abyss, is a virtual trip to the Atlantic Canyons. A product of a five-year study sponsored by the National Oceanographic Partnership Program, this online video reveals a full spectrum of deep sea marine habitats, scientist interviews, and more.

http://www.boem.gov/Atlantic-Canyons-Pathways-to-the-Abyss/

#### **Plotly**

Plotly is an online service for creating and sharing data visualizations. Data can be imported and visualized in a variety of graphic formats. It also offers statistical analysis software that allows readers to do everything from descriptive statistics up to ANOVAs, T-tests, and Chi-squared tests. Free registration is required. https://plot.ly/

#### **SWOT**

The State of the World's Sea Turtles (SWOT) offers news and information about sea turtles. Annual reports are available online (some available in Spanish).

#### http://seaturtlestatus.org/

#### **Trash Talk Activities Webinar**

Watch the archived Trash Talk Activities webinar as a marine debris educational specialist demonstrates four easy, hands-on games you can play with a group of kids to get them thinking about how trash in the ocean impacts dolphins, turtles, and birds. The downloadable materials include many additional resources. http://oceantoday.noaa.gov/trashtalk\_webinar/welcome.html

# **Volcano Hazards Program**

This website from the U.S. Geological Survey features a map highlighting the current statuses of America's volcanoes, and offers a number of other educational resources including a photoglossary, webcams, and much more. https://volcanoes.usgs.gov/

#### What Kids Can Do

What Kids Can Do has compiled three directories of summer programs: Summer Camps with an Edge; Pre-Collegiate Programs on College Campuses; and Opportunities to Serve, Learn, and Explore Abroad. Be sure to browse the other features on the website, including a summer bucket list for teens, resource lists, and much more.

http://whatkidscando.org/

# **World Meteorological Organization: Weather**

The information on this website can be viewed by themes, including Climate, Oceans, Environment, Natural Hazards, Socio-Economic Benefits, Research, and more. There is also a Youth Corner that covers everything from careers in meteorology to notes on rain and freshwater. The website is available in several languages. https://www.wmo.int/pages/themes/weather/index\_en.html

# **INITIATIVES, JOURNALS, and MORE**

## **Gulf and Caribbean Research Journal**

Gulf and Caribbean Research is a peer-reviewed, scientific journal published online by The University of Southern Mississippi. The journal considers manuscripts which deal mainly with research or research issues pertinent to the Gulf of Mexico and Caribbean Sea.

http://aquila.usm.edu/gcr/

# **Oceanus Magazine**

Woods Hole Oceanographic Institution's (WHOI) *Oceanus* magazine explores the oceans in depth, highlighting the research and researchers at WHOI in news, features, and interviews written by magazine staff. Each issue covers a wide spectrum of oceanography, spanning coastal research, marine life, deep-ocean exploration, and the ocean's role in climate, as well as ocean technology and policy. Check out the archives, special series, browse by topic, and much more. http://www.whoi.edu/oceanus/